



Las Vegas Fire & Rescue Fire Prevention Division

Effective Date: July 1 2014

CLV Ordinance #6325

The items listed are basic information only. Items are subject to change. Additional requirements may apply.

Fire Life Safety Systems Testing Guidelines

General Scope:

This guideline was to assist the project general contractor to ensure that the provisions of fire, building and other related codes and standards along with scheduled project completion are met.

Use of this guideline can be used on such as but not limited to: High rise structures, hospitals, high piled storage warehouse or projects that may have performance based design, and projects employing active and passive fire protection features.

Fire Life Safety Systems:

The following systems shall be pre- tested by the appropriate contractor and witnessed for proper functionality in their entirety by Las Vegas Fire & Rescue Fire Prevention division prior to all life safety systems testing. Such systems are as follows but are not limited to:

- Automatic fire sprinkler systems
- Fire pump systems
- Other automatic fire suppression systems (Pre-action, clean agent, etc)
- On-site water supplies
- Off site water supplies
- Fire alarm and detection systems
- Emergency automatic voice/alarm paging systems
- Fire department emergency radio communication systems
- Elevator recall operations
- Fire command center requirements
- Emergency back-up generator to include approved third party load testing results
- Smoke control/management or similar systems

*All systems shall be tested under normal and backup emergency generator.



Las Vegas Fire & Rescue Fire Prevention Division

Fire Life Safety Coordinator:

As multi trade, multi discipline coordination is paramount; it is mandatory that an independent third party organization or individual qualified in the functions of all of the associated systems is retained to assist with such coordination.

General scope / responsibilities

- Organizing and scheduling project meeting(s) with all the team members leading up systems and "all systems test"
- Coordinate all AHJ and third party testing
- Coordinate any re-submittal activity
- Coordinate request for information (RFI) for fire protection contractors
- Confirm proper operation and documentation for contractor fire life safety system to allow for AHJ testing
- Confirm and coordinate proposed fire life safety systems completions, develop systems coordination and similar.

Fire Protection Engineering Firm:

Prepare fire life safety narrative reports identifying fire protection features for specific property. Including but not limited to:

- General project description
- Design team members
- Applicable codes
- Fire Protection Life Safety design approach
 - I. General fire restrictive construction aspects
 - II. Occupancy classification(s)
 - III. Construction type(s)
 - IV. Square footage by location
 - V. Building height
 - VI. Numbers of floor above and below grade
 - VII. Emergency response routes
 - VIII. Service utility entrance locations
 - IX. Fire Separations
 - X. Interior wall, ceiling and floor finishes
 - XI. Decorative structures within building
 - XII. Egress
 - XIII. Emergency Signage
 - XIV. Fire Detection and alarm systems
 - XV. Standpipe systems
 - XVI. Fire sprinkler systems
 - XVII. Commercial kitchen fire extinguishing systems
 - XVIII. Smoke management / control / purge
 - XIX. Emergency Communication Systems
 - XX. Fire Command Center
 - XXI. Emergency and standby power



Las Vegas Fire & Rescue Fire Prevention Division

- XXII. Elevators
XXIII. Any required fire modeling, plume calculations or similar

- Special inspections organization or individual
- Any appendices related to fire detection, alarm, mechanical smoke management functional matrix
- Any appendices related to reduce scale drawings and smoke control/management zone description
- Coordinate all submittals to LVFR Fire Engineering in a timely manner consistent with standard review times.
- Coordinate associated sub-contractors (air-balance, etc) as necessary
- Coordinate project meetings in conjunction
- Coordinate with fire life safety systems coordinator "all systems" testing and plan

NOTE: "All system" testing schedule shall be communicated with the AHJ no less than 72 hours before the requested date. Any subsequent re-testing determined at the time of the all system test will be coordinated at that time

- Develop "all systems" testing plan/scenarios to ensure code compliance and design requirements as addressed and approved within the Fire Protection report. (FPR).
- The all systems test shall demonstrate the entire buildings fire life safety functionality as determined by fire life safety design approach
- After completion of "all systems" testing prepare and submit final report of findings to LVFR Fire engineering for approval.

Las Vegas Fire & Rescue Fire Prevention Responsibilities:

- Assign Fire Protection Engineering staff to project
- Assign Fire Prevention inspection staff to witness fire protection systems testing.
- Review all related submittals including but not limited to: Fire alarm and detection systems, fire protection reports, hazardous materials reports, and special operational function reports*.
- Provide appropriate, timely written correspondence on general project questions or clarifications.
- Assign appropriate staff to take part in the "All Systems" test
- Provide appropriate documentation to allow approval of a "Certificate of Occupancy" upon successful "all systems" test
- Provide written specific documentation on items related to occupancy (Operational Use permits or similar)

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